

Development of Educational Infrastructure in the Area of Nuclear Security

Executive Summary

This project will develop an emphasis area in nuclear security for Master's level students and a collateral area for Ph.D. students. The Nuclear Science and Engineering Institute (NSEI), at the University of Missouri-Columbia, has already developed and implemented unique courses in the area of counterterrorism and weapon nonproliferation. Under this project, the NSEI will develop three more courses. The first will be entitled "The Modern Nuclear Fuel Cycle" and will cover fuel cycles, fuel reprocessing, and low- and high-level waste disposal. The second course, entitled "Nuclear Materials, Risks, Technologies, Security, and Environmental Transport," covers nuclear materials, risk analysis techniques (including the NRC significances determination process), basic nuclear facility accident analysis, nuclear materials management, security, safeguard technologies and practices, and modeling radionuclide transport in the environment. Finally, the third course will be entitled "Nuclear Plants and Security Issues" covering nuclear plant design, nuclear plant security, nuclear policies and regulations.

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